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EXAMINER	
MIRZADEGAN, SAEED S	
ART UNIT	**PAPER NUMBER**
2144	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/816,336	BALI ET AL.	
	Examiner	Art Unit	
	Saeed S. Mirzadegan	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: In numerous places the term "VI" is recited without being properly defined.

Appropriate correction is required.

Claim Objection

2. The disclosure is objected to because of the following informalities: Claims 4, 5, 10, 11, 16, 17 are objected to because the claims recite the term (or limitation) "FC-VI" where it should read "Fibre Channel Virtual Interface (FC-VI)".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claims 8-19, the phrase (or limitation) "Storage Device" renders the claims indefinite. The term "Storage Device" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention.

6. Insofar as best understood, the claims are rejected over prior art as follows. For the sake of applying the closest prior art below, the term (or limitation) "Storage Device" is being interpreted as meaning "Processor" for claims 8-13. If the applicant agrees with this interpretation they are invited to amend claims 8-13 to positively recite, "Processor" or if the applicant disagrees, the applicant should present an alternate interpretation with clear arguments.

7. For the sake of applying the closest prior art below, the term (or limitation) "Storage Device" is being interpreted as meaning "Apparatus" for claims 14-19. If the applicant agrees with this interpretation they are invited to amend claims 8-13 to positively recite, "Apparatus" or if the applicant disagrees, the applicant should present an alternate interpretation with clear arguments.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 8-13 are rejected under 35 U.S.C. 101 because The Claimed Invention is directed to a judicial exception to 35 U.S.C. 101 (Natural Phenomenon) and is not directed to a practical application of such judicial exception since the invention as claimed does not produce a tangible result as set forth in MPEP 2106.

9. Page 10, lines 9-14, recites, "Examples of computer-readable media include but are not limited to recordable type media such as volatile and non-volatile memory devices, floppy and other removable disks, hard disk drives, optical disks (e.g., Compact Disk Read-Only Memory (CD ROMS), Digital Versatile Disks, (DVDs), etc.), among others, and transmission type media such as digital and analog communication links". As it is written, transmission media is also being included in the computer-readable media.

10. In order for software claims to be statutory, they must be claimed in combination with an appropriate medium and/or hardware to establish statutory category of invention and enable any functionality to be realized as set forth in MPEP 2106.01.

Software, *per se*:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759.

When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)
Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "the sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-3, 6-9, 12-15, 18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tjong et al. (Tjong), US Pat. No. 7,213,044 in view of Asai et al. (Asai), US PG. Pub. No. 2003/0225831.

12. Regarding Claim 1 Tjong discloses, establishing the point-to-point link between the two nodes based on a predefined client-server connection protocol [see e.g. Fig. 5, elements 502 & 504 connected via a Point to point communication link based on client server connection protocol and col. 4, lines 47-56]. However, Tjong does not explicitly teach: dynamically assigning one of a client and server role to each of the two nodes based on a rule.

13. In the same field of endeavor, Asai teaches, [see e.g. page 1, ¶0004, lines 4-9 & page 3, ¶0044, base on the rule of making content request, the peer nodes dynamically take on alternate roles of client and server; where the peer node making the request for content take on the role of the client (requester) and the peer node providing the content take on the role of the server (provider)].

14. It would have been obvious to one of ordinary skill in the networking art at the time the applicant's invention was made to combine Asai's teachings of assigning roles of client and server to peer nodes based on a rule with the teachings of Tjong, for the purpose of [see Asai, providing sharing of content such as images within a specific group]. Tjong provides motivation to do so, by allowing a user to communicate with a host computing device configured with remote NDIS via a Point to Point data communication link from any portable device configured with a remote NDIS driver layer [see Tjong, col.5, lines 65-67 & Col. 6, lines 1-15].

15. Regarding Claim 2, Tjong-Asai as applied to claim 1 above disclose the invention substantially as claimed. Asai further discloses: predefining the rule [see e.g. page 3, ¶0044].

16. Regarding Claim 3, Tjong-Asai as applied to claim 2 above disclose the invention substantially as claimed. Asai further discloses: the rule assigns the client and server roles based on a numeric value of a network address of the two nodes. [see e.g. Fig. 13 & Fig. 14, identification code determine which IP address can be the servers and or the clients].

17. Regarding Claim 6, Tjong discloses, a first port in a communications network to establish a point- to-point link with a second port in the communications network [see e.g. Fig. 5, elements 534 & 536], determining unique identifying information for the first and second ports [each port on a network has a unique identity; based on the MAC address & the IP address of the device] ; and establishing the point-to-point link using a client-server connection protocol [see e.g. Fig. 5, elements 502 & 504 connected via a Point to point communication link 506 based on client server connection protocol and col. 4, lines 47-56] . However, Tjong does not explicitly teach: assigning one of a client and server role for the first port based on a rule applied to the unique identifying information for the first and second ports, wherein if the first port is assigned a client role, then the first port sends a connection request to the second port; and if the first

port is assigned the server role, then the first port waits for a connection request from the second port

18. In the same field of endeavor, Asai teaches, [see e.g. page 1, ¶0004, lines 4-9 & page 3, ¶0044, base on the rule of making content request, the peer nodes dynamically take on alternate roles of client and server; where the peer node making the request for content take on the role of the client (requester) and the peer node providing the content take on the role of the server (provider)] and the rule assigns the client and server roles based on a numeric value of a network address of the two nodes. [see e.g. Fig. 13 & Fig. 14, identification code determine which IP address can be the servers and or the clients].

19. It would have been obvious to one of ordinary skill in the networking art at the time the applicant's invention was made to combine Asai's teachings as explained above with the teachings of Tjong, for the purpose of [see Asai, providing sharing of content such as images within a specific group]. Tjong provides motivation to do so, by allowing a user to communicate with a host computing device configured with remote NDIS via a Point to Point data communication link from any portable device configured with a remote NDIS driver layer [see Tjong, col.5, lines 65-67 & Col. 6, lines 1-15].

20. Regarding Claim 7, Tjong-Asai as applied to claim 6 above disclose the invention substantially as claimed. Asai further discloses: the rule defines the client and

server roles based on a comparison of values associated with the unique identifying information for the first and second ports. [see e.g. Fig. 13 & Fig. 14, identification code determine which IP address can be the servers and or the clients].

21. Claim 8, lists all the same elements of claim 1, but in a computer readable medium form rather than method form. Therefore, the supporting rationale of the rejection to claim 1 applies equally as well to claim 8.

22. Claim 9, lists all the same elements of claim 2, but in a computer readable medium form rather than method form. Therefore, the supporting rationale of the rejection to claim 2 applies equally as well to claim 9.

23. Claim 12, lists all the same elements of claim 6, but in a computer readable medium form rather than method form. Therefore, the supporting rationale of the rejection to claim 6 applies equally as well to claim 12.

24. Claim 13, lists all the same elements of claim 7, but in a computer readable medium form rather than method form. Therefore, the supporting rationale of the rejection to claim 7 applies equally as well to claim 13.

25. Claim 14, lists all the same elements of claim 1, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 1 applies equally as well to claim 14.

26. Claim 15, lists all the same elements of claim 2, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 2 applies equally as well to claim 15.

27. Claim 18, lists all the same elements of claim 6, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 6 applies equally as well to claim 18.

28. Claim 19, lists all the same elements of claim 7, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 7 applies equally as well to claim 19.

Claim Rejections - 35 USC § 103

29. Claims 4, 5, 10, 11, 16, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tjong in view of Asai further in view of "Fibre Channel Virtual Interface (FC-VI) Rev. 1.6" (FC-VI Rev 1.6).

30. Regarding Claim 4 Tjong discloses, establishing the peer-to-peer connection between the two peer FC-VI ports using a client-server connection protocol [see e.g.

Fig. 5, elements 502 & 504 connected via a Point to point or Peer to Peer connection based on client server connection protocol and col. 4, lines 47-56]. However, Tjong does not explicitly teach: dynamically assigning one of a client and server role to each of the two FC-VI port, and the port assigned the client role sends a connection request to the port assigned the server role, the port assigned the server role accepts the connection request, and the port assigned the client role acknowledges the acceptance.

31. In the same field of endeavor, Asai teaches, [see e.g. page 1, ¶0004, lines 4-9 & page 3, ¶0044, base on the rule of making content request, the peer nodes dynamically take on alternate roles of client and server; where the peer node making the request for content take on the role of the client (requester) and the peer node providing the content take on the role of the server (provider)].

32. It would have been obvious to one of ordinary skill in the networking art at the time the applicant's invention was made to combine Asai's teachings of assigning roles of client and server to peer nodes based on a rule with the teachings of Tjong, for the purpose of [see Asai, providing sharing of content such as images within a specific group]. Tjong provides motivation to do so, by allowing a user to communicate with a host computing device configured with remote NDIS via a Point to Point data communication link from any portable device configured with a remote NDIS driver layer [see Tjong, col.5, lines 65-67 & Col. 6, lines 1-15].

33. In the Same field of endeavor, FC-VI Rev 1.6 teaches [see e.g. page 19, ¶4.2, lines 6-7, Fiber Channel virtual interface (FC-VI) structure and concept; Peer to Peer and Client-Server connections], [page 29, ¶5.3.1, lines 1-2 & page 30, Fig. 8, Fibre Channel Virtual Interface (FC-VI) Client-Server connection setup where request and acknowledgments are displayed], [page 31, ¶5.3.2, lines 1-2, Fibre Channel Virtual Interface (FC-VI) Peer to Peer connection establishment & page 33, Fig. 9, Fibre Channel Virtual Interface (FC-VI) Peer to Peer connection setup].

34. It would have been obvious to one of ordinary skill in the networking art at the time the applicant's invention was made to combine FC-VI Rev 1.6's teachings as explained above with the teachings of Tjong- Asai, for the purpose of [see FC-VI Rev 1.6, defining Fiber Channel (FC) mapping protocol for the Virtual Interface (VI)]. Tjong provides motivation to do so, by allowing a user to communicate with a host computing device configured with remote NDIS via a Point to Point data communication link from any portable device configured with a remote NDIS driver layer [see Tjong, col.5, lines 65-67 & Col. 6, lines 1-15].

35. Regarding Claim 5, Tjong-Asai-"FC-VI Rev 1.6" as applied to claim 4 above disclose the invention substantially as claimed. Asai further discloses: the rule assigns the client and server roles based on a numeric value of a network address of the two nodes. [see e.g. Fig. 13 & Fig. 14, identification code determine which IP address can be the servers and or the clients].

36. Claim 10, lists all the same elements of claim 4, but in a computer readable medium form rather than method form. Therefore, the supporting rationale of the rejection to claim 4 applies equally as well to claim 10.

37. Claim 11, lists all the same elements of claim 5, but in a computer readable medium form rather than method form. Therefore, the supporting rationale of the rejection to claim 5 applies equally as well to claim 11.

38. Claim 16, lists all the same elements of claim 4, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 4 applies equally as well to claim 16.

39. Claim 17, lists all the same elements of claim 5, but in system form rather than method form. Therefore, the supporting rationale of the rejection to claim 5 applies equally as well to claim 17.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to form PTO-892 (Notice of Reference Cited) for a list of relevant prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeed S. Mirzadegan whose telephone number is 571-270-3044. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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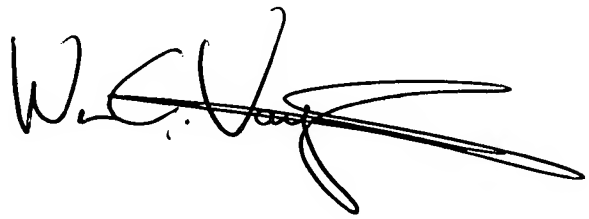

WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100